

Adenoviral vector

DESCRIPTION

Human adenoviruses are members of the family *Adenoviridae*. They are nonenveloped viruses with a double-stranded linear DNA genome. Adenoviruses are extremely stable in the environment.

PATHOGENICITY

Adenoviruses cause human infections and in rare cases, severe disease. These viruses cause infections of the respiratory tract, of the mucosa and of the gastrointestinal tract. Replication defective recombinant adenoviruses can cause corneal and conjunctiva damage.

MODE OF TRANSMISSION

Adenoviruses are transmitted by inhalation of aerosolized droplets, by contact with mucosa, by parenteral injection and by ingestion.

LABORATORY CONTAINMENT REQUIREMENTS

- **Containment level 2.**

ANIMAL RESEARCH FACILITY CONTAINMENT REQUIREMENTS

- Recombinant adenoviral vector inoculation : **containment level 2.**
- Housing of animals infected with recombinant adenoviral vector : **containment level 2 for duration of experiment.**

DISINFECTANTS

- 1 % sodium hypochlorite (1/5 dilution of bleach), 2 % glutaraldehyde, 0,25 % sodium dodecyl sulfate.
- Alcohols (ethyl and isopropyl) not effective.

PHYSICAL INACTIVATION

- Autoclave : 121°C, 30 minutes, 15 psi.

ADDITIONAL INFORMATION

- Material safety data sheet « *Adenovirus (types 1, 2, 3, 4, 5 and 7)* », Public Health Agency of Canada.
- « *Laboratory Biosafety Guidelines* », Public Health Agency of Canada.
- « *Containment Standards for Veterinary Facilities* », Canadian Food Inspection Agency.
- « *Guidelines for Research Involving Recombinant DNA Molecules* », National Institutes of Health.
- Adenoviruses Homepage, Centers for Disease Control and Prevention.
- Web site of the *Comité universitaire de gestion des risques biologiques*, Université Laval <http://www.ssp.ulaval.ca/matieres-dangereuses/risques-biologiques/>.